

### **Claims**

What is claimed is:

- 1 1. A modular platform, comprising:
  - 2 a chassis having a front side and a back side, and configured to receive modular
  - 3 platform boards;
  - 4 a plenum associated with the chassis ; and
  - 5 at least one chassis management module removably disposed in the at least one
  - 6 plenum in a substantially parallel relationship with a flow of a cooling medium passing
  - 7 through the plenum.
- 1 2. The modular platform of Claim 1, wherein the plenum is a dual plenum and the
- 2 chassis management module is positioned substantially vertical in the dual plenum.
- 1 3. The modular platform of Claim 2, wherein the dual plenum includes two or more
- 2 fan modules that are independently removable from the plenum.
- 1 4. The modular platform of Claim 3, wherein the chassis management module is
- 2 vertically positioned about an outer edge of at least one of the fan modules, and
- 3 independently removable from the at least one fan module.
- 1 5. The modular platform of Claim 3, wherein the chassis management module is
- 2 vertically positioned between at least two fan modules, and independently removable
- 3 from the at least two fan modules.

1 6. The modular platform of Claim 1, wherein the chassis management module is  
2 removable from the front side of the modular platform.

1 7. The modular platform of Claim 1, wherein the modular platform is at least part  
2 compliant with a standard and includes a chassis management module that controls the  
3 interaction between components of the modular platform.

1 8. The modular platform of Claim 7, wherein the standard is PICMG 3.0 ATCA, and  
2 the chassis management module performs the functions of a shelf management  
3 controller and a shelf manager.

1 9. The modular platform of Claim 8, wherein the components in which the chassis  
2 management module can support includes up to sixteen modular platform boards, at  
3 least one fan module, and a power entry module.

1 10. The modular platform of Claim 9, wherein the plenum is a dual plenum having a  
2 height of 2U and the chassis management module has a height of less than or equal to  
3 2U and is removably positioned vertically in the dual plenum.

1 11. A system, comprising:  
2 a rack; and  
3 a plurality of modular platforms mounted in the rack, at least one of the modular  
4 platforms including

5 a chassis having a front side and a back side, and configured to receive modular  
6 platform boards,  
7 a plenum associated with the chassis , and  
8 at least one chassis management module removably disposed in the at least one  
9 plenum in a substantially parallel relationship with a flow of a cooling medium passing  
10 through the plenum.

1 12. The system of Claim 11, wherein the plenum is a dual plenum and the chassis  
2 management module is positioned substantially vertical in the dual plenum.

1 13. The system of Claim 12, wherein the dual plenum includes two or more fan  
2 modules that are independently removable from the plenum.

1 14. The system of Claim 13, wherein the chassis management module is vertically  
2 positioned about an outer edge of at least one of the fan modules, and independently  
3 removable from the at least one fan module.

1 15. The system of Claim 13, wherein the chassis management module is vertically  
2 positioned between at least two fan modules, and independently removable from the at  
3 least two fan modules.

1 16. The system of Claim 11, wherein the chassis management module is removable  
2 from the front side of the modular platform.

1 17. The system of Claim 11, wherein the at least one modular platform is at least part  
2 compliant with a standard and includes a chassis management module that controls the  
3 interaction between components of the modular platform.

1 18. The system of Claim 17, wherein the standard is PICMG 3.0 ATCA, and the  
2 chassis management module performs the functions of a shelf management controller  
3 and a shelf manager.

1 19. The system of Claim 18, wherein the components in which the chassis  
2 management module can support includes up to sixteen modular platform boards, at  
3 least one fan module, and a power entry module.

1 20. The system of Claim 19, wherein the plenum is a dual plenum having a height of  
2 2U and the chassis management module has a height of less than or equal to 2U and is  
3 removably positioned vertically in the dual plenum.

1 21. The system of Claim 18, wherein the rack has a aggregate height limitation of  
2 42U.

1 22. The system of Claim 21, wherein the rack includes four modular platforms, at  
2 least one of the four modular platform being coupled to at least one dual plenum and  
3 having a chassis management module substantially vertically and removably positioned  
4 in each dual plenum.